

REMARKS

Claims 28-30 stand rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter. Claims 1, 3-7, 10, 11, 13-21, and 24-30 stand rejected under 35 U.S.C. § 102(e) as anticipated by US Patent 6,567,899 to Ghosh et al. (Ghosh). Claims 1, 3-7, 10, 11, 13-21, and 24-30 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Ghosh in view of US Publication 2003/0149967 by Kamada et al. (Kamada).

Telephone Interview Summary

Examiner Carlton Johnson and Applicants' representative Scott Thorpe held a telephone interview on August 25, 2010. We discussed the present invention and a proposed amendment.

Response to rejection of claims under 35 U.S.C. § 101

Claims 28-30 stand rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter. Applicants have amended claim 28 as suggested to claim a “non-transitory computer readable storage medium” and submit that as amended claims 28-30 are directed to statutory subject matter under 35 U.S.C. § 101.

Amendments to the Claims

In addition to the amendments described above, Applicants have amended claim 1 with the limitation “...the data transfer kernel ~~exclusively supporting loading only a data save operation in response to rebooting the processor with the data transfer kernel, the data save~~”

operation saving the data in the volatile memory to a storage device, and shutting down the processor in response to completing the data save operation....” The amendment is well supported by the specification on page 10, lines 24; fig. 2, ref. 240. Claims 10, 13, 17, 24, and 28 are similarly amended. Additional amendments were made to make language within claims consistent. Claim 29 is amended to conform to amended claim 28.

Applicants are not conceding that the claims amended and canceled are not patentable over the art cited by the Examiner, as the present claim amendments and cancellations are only for facilitating expeditious prosecution. Applicants respectfully reserve the right to pursue these and other claims in one or more continuation and/or divisional patent applications.

Response to rejections of claims under 35 U.S.C. § 102

Claims 1, 3-7, 10, 11, 13-21, and 24-30 stand rejected under 35 U.S.C. § 102(e) as anticipated by Ghosh. Applicants respectfully traverse this rejection.

Claim 1 as amended includes the limitations:

“...a processor processing data;
a volatile memory storing the data;
a boot control module booting the processor with a standard operating kernel under a normal operating condition and deterministically terminating all existing processes and the standard operating kernel by rebooting the processor with a **data transfer kernel** in response to an abnormal operating condition that threatens a loss of the data in the volatile memory, wherein the reboot occurs without a loss of the data within the volatile memory; and

the data transfer kernel loading only a data save operation in response to rebooting the processor with the data transfer kernel, the data save operation saving the data in the volatile memory to a storage device, and **shutting down the processor in response to completing the data save operation.**” Emphasis added.

Independent claims 10, 13, 17, 24, and 28 include similar limitations. Applicants submit that claim 1 is distinguished from Ghosh by claiming a “...data transfer kernel...,” “...the data transfer kernel loading only a data save operation in response to rebooting the processor with the data transfer kernel...,” and “...shutting down the processor in response to completing the data save operation...”

The Examiner acknowledges that Ghosh does not teach a data transfer kernel as claimed in claim 1. Office Action of June 4, 2010 (OA), page 20, line 8. Applicants therefore submit that claims 1, 10, 13, 17, 24, and 28 are allowable over Ghosh.

The Examiner further notes Ghosh teaches powering up a processor and downloading data from a transportable memory during the power up process. OA page 7, lines 7-18; citing Ghosh, col. 6, lines 52-64.

Applicants have amended claim 1 to claim a data transfer kernel loading only a data save operation in response to rebooting a processor with the data transfer kernel. In contrast, Ghosh teaches that after a power up, the kernel performs other operations including verifying a firmware image in Read Only Memory (ROM). See Ghosh, fig. 6, ref. 100. Thus Ghosh does not teach a data transfer kernel loading only a data save operation in response to rebooting a processor with

the data transfer kernel.

Claim 1 further claims that the data transfer kernel shuts down the processor in response to completing the data save operation. As the Examiner notes, Ghosh teaches downloading data during a next activation cycle. OA, page 7, lines 14-18, citing Ghosh, col. 6, lines 52-64. However, Ghosh does not teach a data transfer kernel that loads only a data save operation shutting down a processor in response to completing the data save operation. Specifically, Ghosh does not disclose shutting down after downloading data during the activation cycle.

While Ghosh does teach rebooting and saving data generally, Ghosh does not disclose the specific elements of claim 1. As mentioned above, Ghosh does not teach a data transfer kernel *loading only a data save operation*. In addition, Ghosh does not teach shutting down the processor *in response to the completing the data save operation*.

Applicants therefore submit that Ghosh that does not teach the elements a “...data transfer kernel...,” “...the data transfer kernel loading only a data save operation in response to rebooting the processor with the data transfer kernel...,” and “...shutting down the processor in response to completing the data save operation...” of claim 1, and that claim 1 is therefore allowable. Applicants further submit that claims 10, 13, 17, 24, and 28 are allowable for the same reasons, and that claims depending from claims 1, 10, 13, 17, 24, and 28 are allowable as depending from allowable claims.

Response to rejections of claims under 35 U.S.C. § 103(a)

Claims 1, 3-7, 10, 11, 13-21, and 24-30 stand rejected under 35 U.S.C. § 103(a) as

unpatentable over Ghosh in view of Kamada. Applicants respectfully traverse these rejections.

Applicants submit that claims 1, 10, 13, 17, 24, and 28 are patentable over Ghosh and Kamada in view of the *Graham v. John Deere* standard of patentability. See MPEP § 2141, *Graham v. John Deere*, 383 U.S. 1, 148 USPQ 459 (1966). Claim 1 is exemplary of independent claims 10, 13, 17, 24, and 28.

Scope and Contents of the Prior Art

Ghosh teaches a transportable memory apparatus that detects a disruption of a power supply. Ghosh, col. 6, lines 63-65. If a cache is dirty, the cache is switched to an auxiliary power supply. Ghosh, col. 10, lines 17-23. The cache data, serial presence defect (SPD) data, is then available when a computer is rebooted. Ghosh, col. 11, lines 52-55.

Kamada teaches a kernel that spawns Java virtual machines for each Java application. Kamada, Abstract. Kamada further teaches an internal process generating unit of the kernel generating a class loader and a thread group. Kamada, page 3, ¶ 40.

Differences Between the Prior Art and the Claims

As discussed above, Ghosh does not disclose the elements “...the data transfer kernel loading only a data save operation in response to rebooting the processor with the data transfer kernel...” and “...shutting down the processor in response to completing the data save operation...”

The Examiner notes that Kamada teaches a kernel that saves and manages a class loader

and a thread group. OA, page 20, lines 9-11; citing Kamada, page 3, ¶ 40. However, the data transfer kernel claimed for claim 1 is distinguished from the kernel of Kamada by claiming that ***the data transfer kernel loads only a data save operation in response to rebooting the processor with the data transfer kernel.*** In contrast, the kernel disclosed by Kamada loads a plurality of Java applications. Kamada, Abstract. Thus Kamada does not teach the “...the data transfer kernel loading only a data save operation in response to rebooting the processor with the data transfer kernel...” In addition, Kamada does not teach “...shutting down the processor in response to completing the data save operation...”

Applicants therefore submit that the combination of Ghosh and Kamada do not teach the elements “...the data transfer kernel loading only a data save operation in response to rebooting the processor with the data transfer kernel...” and “...shutting down the processor in response to completing the data save operation...” claimed for claim 1.

Level of Ordinary Skill in the Pertinent Art

Ghosh and Kamada are exemplary of the level of ordinary skill in the art at the time of the present invention. As discussed above, the combination of Ghosh and Kamada do not disclose the elements “...the data transfer kernel loading only a data save operation in response to rebooting the processor with the data transfer kernel...” and “...shutting down the processor in response to completing the data save operation...” claimed for claim 1. Applicants therefore submit that the elements of claim 1 are not of the level of ordinary skill in the art at the time of the present invention.

Secondary Considerations

While Applicants respectfully reserve the right to present evidence of commercial success or other secondary factors at a later date if necessary, the discussion above, the fact that no one in the art of deterministically transferring data has taught or disclosed the claimed invention shows at least a long-felt need in the art and unexpected results, indicating non-obviousness.

Because the combination of Ghosh and Kamada do not teach each element of claim 1, because the level of ordinary skill in the art at the time of the present invention did not support the elements of claim 1, and because of the secondary considerations, Applications submit that claim 1 is allowable. Applications further submit that claims 10, 13, 17, 24, and 28 are allowable for the same reasons, and that claims depending from claims 1, 10, 13, 17, 24, and 28 are allowable as depending from allowable claims.

Conclusion

As a result of the presented remarks, Applicants assert that the application is in condition for prompt allowance. Should additional information be required regarding the traversal of the rejections of the claims enumerated above, Examiner is respectfully asked to notify Applicants of such need. If any impediments to the prompt allowance of the claims can be resolved by a telephone conversation, the Examiner is respectfully requested to contact the undersigned.

Respectfully submitted,

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